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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/777,321	02/12/2004	Leslie Louis Szepesi	200311998	5556

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FORT COLLINS, CO 80527-2400

EXAMINER

OSORIO, RICARDO

ART UNIT	PAPER NUMBER
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2629

MAIL DATE	DELIVERY MODE
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11/01/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/777,321	Applicant(s) SZEPESI ET AL.	
	Examiner RICARDO L. OSORIO	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 3,6-8,11,12,17,18 and 20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5,9,10,13-16 and 19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>2/12/2004; and 3/19/2007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's election with traverse of species II of Fig. 3, claims 1, 2, 3, 5, 7-16, and 18-19 in the reply filed on 7/26/2007 is acknowledged. The traversal is on the ground(s) that the species are not mutually exclusive, and examiner has not set forth a reason why searching the remaining species would be burdensome. This is not found persuasive because the specification clearly admits that there are three separate embodiments, species 1, Figs. 1-2B, species 2, Fig 3, and species 3, Figs. 4 and 5. For example, species 2, Fig. 3, adds three resistive elements and analog multiplexers, and species 3, Fig. 4, adds two digital-to-analog converters. Therefore, examining the non-elected species would cause a serious burden on the examiner. For the above reasons non-elected claims 3, 6, and 17 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Also, claims 7 and 8 are withdrawn from further consideration for being dependent on non-elected species claim 6. Furthermore, claim 20 was previously withdrawn as a non-elected subcombination on 4/23/2007, however, upon further consideration, examiner has found that claims 11, 12 and 18 are part of the same subcombination, or group, of claim 20 for including limitations such as, "semitransparent plate", "reflective middle plate" and "lower plate". Therefore claims 11, 12, and 18 are also withdrawn from further consideration. Conclusion, claims 3, 6-8, 11, 12, 17, 18, and 20 stand withdrawn from further consideration.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 4, 9, 13, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Lee (6,429,841).

Regarding claims 1, 13, and 19, Lee discloses a voltage driven array, comprising: an array of discrete elements organized into at least one row and a plurality of columns (Fig. 5, ch. 10); and a voltage supply comprising: a resistive element having a first end and a second end (Fig. 7, character Rcc1-Rcc (j-1)); a first voltage applied to the first end (Fig. 7, character 16A) and a second voltage applied to the second end that is different from the first voltage (Fig. 7, character 16B); and wherein each one of a plurality of positions on the resistive element connects to a respective one of the rows or columns such that each of the different positions along the resistive element supplies a different voltage to the respective row or column than a remainder of the positions (col. 8, lines 17-55).

As to claim 4, Lee discloses that each of the columns connects to the resistive element (col. 7, lines 35-50).

As to claim 9, Lee teaches that each of the discrete elements is an illuminating element (Fig. 3, character Clc).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee (see above).

As to claim 10, Lee does not specifically teach of the illumination elements being an interferometer.

However, a discrete illumination element can be any voltage driven element arrayed in an array, including an interferometer (as admitted by applicant).

Therefore, the interferometer is just used as an exemplary element among other possible types of voltage driven elements. Therefore, examiner takes Official Notice that the use of an interferometer as a voltage driven element is well known in the art of voltage driven display elements.

6. Claims 2 and 16 rejected under 35 U.S.C. 103(a) as being unpatentable over Lee (see above) in view of Sakaguchi (2003/0201959).

As to claims 2 and 16, Lee fails to disclose that the resistive element is constructed of polysilicon.

Sakaguchi discloses a voltage driven array wherein the resistive element is constructed of polysilicon (paragraph 139, lines 7 and 8).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the resistive element made of polysilicon, as taught by Sakaguchi, in the device of Lee because it is well known in the art of resistive elements that such resistive elements are typically made of polysilicon (see paragraph 139, lines 7 and 8).

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee (see above) in view of Fallot-Burghardt et al. (7,038,646).

As to claim 5, further, Lee fails to disclose that the array is supplied with voltages in a time delay multiplexed fashion.

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Fallot-Burghardt discloses a voltage driven array supply that is adapted to supply the array with voltages in a time delay multiplexed fashion (col. 5, lines 15-28).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the multiplexers, as taught by Fallot-Burghardt, in the device of Lee for the purpose of fine tuning the voltage levels (see col. 5, lines 25 and 26).

Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee (see above) in view of Medina (6,359,389).

Regarding claim 14 and 15, Lee teaches of a plurality of rows (see Fig. 5, character 10).

However, Lee does not specifically teach of activating only one row to supply voltage to only one row with the resistive element, and applying a new first voltage and a new second voltage; and activating a second row and deactivating the one row to supply voltage only to the second row.

Medina discloses a voltage driven array supply that activates only one row to supply voltage to only one row with the resistive element, and applying a new first voltage and a new second voltage; and activating a second row and deactivating the one row to supply voltage only to the second row (col. 7, lines 19-23).

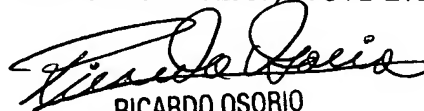
Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to activate one row at a time since it is commonly known in the art of display row driving that rows are typically activated one at a time.

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to RICARDO L. OSORIO whose telephone number is (571) 272-7676. The examiner can normally be reached on MONDAY-THURSDAY 7:00 am-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, BIPIN SHALWALA can be reached on (571) 272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



RICARDO OSORIO
PRIMARY EXAMINER

Technology Division: 2629

RLO

October 28, 2007